

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A computer-implemented method for managing a plurality of computer devices in a client server network, said method comprising:
 - maintaining ~~systems of a plurality of~~ grid managers in a grid computing environment, wherein each of the plurality of grid managers resides on a computer device and the plurality of said grid managers have hierarchical relations, each of the relations being classified as superior or inferior;
 - storing, in each of the plurality computer devices ~~systems~~, the hierarchical relations of each grid manager; and
 - receiving, from at least one of the plurality of grid managers, current resource loading information, the current resource loading information comprising the computational resources available to the computer device on which the grid manager resides and the computational resources available to all computer devices having an inferior relation to the computer device on which the grid manager resides;
 - receiving, from an application, utilization requirements for computational resources;
 - comparing the utilization requirements to the current resource loading, and based on the comparison, dynamically reconfiguring resource allocations by changing the hierarchical relations between grid managers in the grid computing environment to maintain a predetermined resource allocation level.

2. (Cancelled).

3. (Currently Amended) A system comprising:

a network of computer devices ~~systems~~, each of the computer devices ~~systems~~ including a grid manager having hierarchical relations with other grid managers, the relations of each grid manager being classified as superior or inferior and stored in each of the devices ~~systems~~; and

a dynamic resource allocator for reconfiguring computing resources in the network of computer ~~systems~~, the reconfiguring of computing resources includes:

receiving, from at least one of the plurality of grid managers,
current resource loading information, the current
resource loading information comprising the
computational resources available to a computer
device and the computational resources available to
all inferior computer devices;

receiving, from an application, utilization requirements for
computational resources;

comparing utilization requirements to the current resource
loading, and

based on the comparison, [[by]] changing the hierarchical
relations between grid managers to maintain a
predetermined resource allocation level.

4. (Cancelled).

5. (Withdrawn) A method comprising:

starting, in a network, an execution of a first service on a first computer,
the first service handling at least locating, reserving, allocating,
monitoring, and deallocating one or more computational resources
for one or more applications using the network;

reading, by the first service, a file to inform the first service of a relation
with a second service, wherein the first service has a inferior
relation with the second service, the inferior relation meaning that
the second service can send a query for available computer
resources to the first service;

establishing a first communication channel from the first service to the
second service; and

accepting an opening of a second communication channel from the
second service to the first service.

6. (Withdrawn) The method of claim 5 further comprising:

receiving a message to cancel the first service's inferior relation with the
second service;

closing the first and second communication channels;

receiving a message to generate a inferior relation from the first service to
a third service residing in a third computer;

establishing a third communication channel from the second service to the
third service; and

accepting an opening of a fourth communication channel from the third
service to the first service.

7. (Withdrawn) The method of claim 5 wherein establishing a first communication channel further comprises determining if the second service responds to determining and if not, establishing a communication channel to the second service after a predetermined time period.
8. (Withdrawn) A method comprising:
 - starting, in a network, an execution of a first service residing in a first computer, the first service handling at least locating, allocating, monitoring, and deallocating one or more computational resources for one or more applications using the network;
 - starting an execution of a second service residing in a second computer;
 - reading, by the second service, a file to inform the second service of a relation with the first service, wherein the second service has a inferior relation with the first service, wherein the inferior relation indicates that the first service can send a query for available computer resources to the second service;
 - establishing a first communication channel from the second service to the first service; and
 - establishing a second communication channel from the first service to the second service.
9. (Withdrawn) The method of claim 8 further comprising:
 - receiving, by the second service, a message to cancel the second service's relation with the first service;
 - closing the first communication channel;
 - failing to respond to the second communication channel;

receiving a message to create a inferior relation from the second service to a third service;

establishing a third communication channel from the second service to the third service; and

establishing a fourth communication channel from the second service to the third service.

10. (Withdrawn) A system comprising:

two or more computers each configured to run a service, the service handling at least locating, allocating, monitoring, and deallocating one or more computational resources for one or more applications;

a network of the services, the network configured such that a first service has a superior relation with a second service and the second service has an inferior relation with the first service, wherein the first service is configured to check the status of the second service in the network by waiting for a response to a query from the first service to the second service.

11. (Withdrawn) The system of claim 10 wherein the relation comprises a first communication channel from the first service to the second service and a second communication channel from the second service to the first service.

12. (Withdrawn) The system of claim 10 wherein the first service is further configured to locate the one or more computational resources for the one or more applications by sending a query for available computational resources to the second service.

13. (Withdrawn) The system of claim 10 wherein the second service is further configured to remove its inferior relation with the first service and create a new superior relation with a third service.
14. (New) The computer-implemented method of claim 1, wherein the method manages the plurality of computer devices by accessing a network address of one of the plurality of computer devices running a grid manager.
15. (New) The computer-implemented method of claim 1, wherein the computer-implemented method for managing a plurality of computer devices in a client server network is performed by an Application Program Interface (API) that receives requests from at least one of the grid managers.
16. (New) The computer-implemented method of claim 1, wherein changing the hierarchical relations between grid managers further comprises sending strings containing commands to delete existing relations or add new relations.
17. (New) The system of claim 3, wherein the system accesses resources from the plurality of computer devices through a network address of one computer devices.
18. (New) The system of claim 3, the system further comprising an Application Program Interface (API) that receives requests from at least one of the grid managers.

19. (New) The system of claim 3, wherein changing the hierarchical relations between grid managers further comprises sending strings containing commands to delete existing relations or add new relations.